



EBENEZER CHRISTIAN SS-NAMULANDA

COMPETENCE BASED ASSESSMENT 2026

BEGINNING OF TERM 1 EXAMS 2026

S.4 BIOLOGY PAPER 1

TIME 2 ½ HOURS

NAME SIGN.....

INSTRUCTIONS TO CANDIDATES

- This paper consists of **Two** sections; **A** and **B**.
- It has seven examination items.
- Section A has **three compulsory** items.
- Responses to Section A must be written in the spaces provided.
- Section B has two parts; **1** and **11**. Respond to one item from each part.
- Responses to Section B **must** be written in the answer booklet(s) provided.
- Respond to **five** items in all. Any **additional** item(s) responded to will **Not** be scored.

SECTION A (Attempt all items)

Item 1

Jonah planted maize and mixed beans on his plot along a dusty road side. As a way of obtaining good yields, prepared his garden well and planted quality seeds in closely packed columns and rows, applied fertilizers, sprayed to prevent any pests and removed weeds. He planted maize earlier and planted beans later after the maize were already tall. His maize yielded poorly and beans remained stunted with no yields. He is very worried about the outcomes yet he spent a lot of money on the garden.



Task.

- a. Describe the causes of the outcomes.

- b. Advice Jonah on how he can plant the same plants in the same garden in other seasons with minimal losses.

Item 2

Peter is preparing a meal while enjoying a few drinks with friends. After several hours of socializing and consuming alcohol, he decides to warm some milk for his evening tea. As he reaches for the saucepan on the stove, he accidentally touches the side of the hot pan. He doesn't react in anyway but realises later that he got a burn in the process.

Task:

a) Explain

- i. The key processes and body parts involved in that incidence, including the roles of sensory receptors, nerves, and the spinal cord.

- ii. The biological problems that arise from Peter's alcohol consumption

a. Describe

- i. how the body normally overcomes such challenges through reflex actions
Describe potential strategies or interventions that Peter could take to minimize the risks associated with alcohol consumption in dangerous situations like cooking.

and deforestation for agricultural purposes, has begun to take a toll on these precious environments. The beautiful forests of Bwindi Impenetrable National Park, a UNESCO World Heritage Site, are known for their rich biodiversity, including endangered species like the mountain gorilla. Nonetheless, the pressures of land reclamation for farming and unsustainable logging practices have led to significant ecological disruption.

Task.

Explain the effects of such human activities highlighting the natural resources at risk of being affected and what can be done to reverse the effects. Discuss the benefits of preserving such a UNESCO World Heritage Site emphasizing the importance of biodiversity and ecosystem health.

ITEM 5

Many residents had cleared and constructed residential and commercial buildings and various factories in Lubigi, a large wetland in Kampala. Due to the many environmental challenges brought about by their actions, the National Environmental Management Authority NEMA, has decided to force them out of the area and destroyed all their buildings in order to restore the wetlands and residents are not happy.



Task.

Explain to the residents how their actions have brought about the environmental challenges in Kampala city. Suggest what could be done to avoid such challenges if they

were allowed to sustainably live in the area and why is it important for NEMA, to restore the area to its original state.

PART 11 (CHOOSE ONE ITEM)

ITEM 6

Gembe, a village in Luwero is composed of the following groups of people; Pregnant women, Crawling babies, footballers and athletes, office workers and old people. The health care providers of the area want to design the right diet for each group of people but they don't know what to include. You have been consulted on what to do.

Task.

- a. Identify the nutrients and their uses that should constitute a greater percentage in the diets of the above groups of people in Gembe village.

- b. Suggest what would happen if the individuals above depended on an imbalanced diet.

ITEM 7

A 45-year-old man enjoys a lot of fatty foods and sugary drinks and also sits for long hours in office. He smokes one packet of cigarette a day. He experiences swelling of his feet and his teeth have turned brown. Lately, he experienced shortness of breath and general body weakness and was taken to the hospital for medical checkup. The medical results showed that the old man was overweight, had fat deposits in the coronary artery and also had some of his air sacs blocked. He was advised to start medical treatment.



Task

- (a) Explain how the conditions experienced by the old man are as a result of his lifestyle.

- (b) Explain how the old man can overcome the conditions in his body besides using medical treatment.

END

"The way to get started is to quit talking and begin doing."